



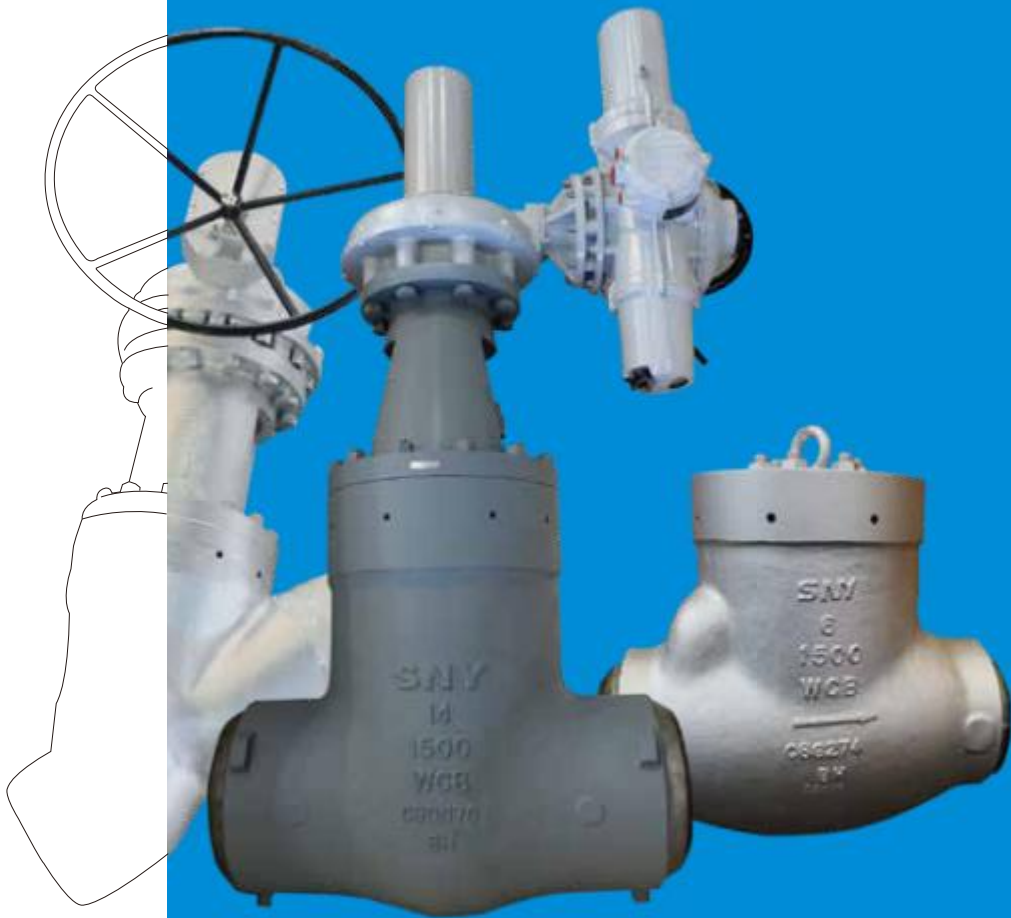
ASME B16.34

PRESSURE
SEAL
VALVE

SNY VALVE (YANCHENG) CO., LTD.

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COMPANY PROFILE

SNY Valve (Yancheng) Co., Ltd. is committed to providing global customers with reliable and complete range of solution for engineering valve. Established in 2003 with CNY 150 million registered capital, SNY VALVE is a national high-tech comprehensive enterprise which integrating valve R&D manufacturing and sales. SNY VALVE headquarters is located in Yancheng city with two manufacturing workshops. We have sales centers in Yancheng, Suzhou and Beijing. SNY VALVE covers an area of over 100,000 sq. meters with more than 300 sets of production, test & inspection facilities. SNYVALVE has established long-term cooperative relations with many large enterprises at home and abroad, been approved by many end users and EPC companies, and products export to middle east, Europe, America, etc.

Main Products

SNY VALVE products are widely applied in oil, gas, petroleum refining, petrochemical, power, mining, metallurgy, LNG shipbuilding and other industries. Our product range are NPS 1/4~60 inch (DN6~DN1500), Class150~2500 (PN16~PN420). Our mainly products are gate valves, globe valves, check valves, ball valves, API6D valve, and we are actively developing special valves used for severe service such as cryogenic, ultra-high temperature and high corrosion. Products are designed according to standards of ANSI, ASTM, API, BS, JIS, DIN, GB, ISO, MSS, etc., and design temperature from -196 to 650 Deg.C. Material are available of carbon steel, stainless (including duplex and super duplex), and other alloys steel (low alloy, nickel-based alloy, Inconel, Monel, Hastelloy),etc.

Technical Strength

SNY VALVE has a first-class technology research and development team, and we have nearly 100 of all kinds of patents and copyrights. Company are capable of physical & chemical analysis, mechanical performance testing, NDT, impact test at ambient temperature and low temperature, hardness testing, metallographic analysis, coordinate measuring, valve torque testing, valve life testing, high-temperature & cryogenic testing, etc., products have been certified through fire safe, fugitive emission, TAT tests.



HEADQUARTERS

Established in 2003
Area: 34,000 ㎡
Located in Tinghu District,
Yancheng City.



THE SECOND FACTORY

Established in 2006
Area: 58,000 ㎡
Located in Yancheng E&T
development zone, Yancheng City.



SUZHOU BRANCH

Located in Suzhou Industrial Zone, Suzhou branch is the global sales & marketing center of SNY VALVE, which plays a comprehensive role in market promotion, sales, and set up distribution system.



BEIJING BRANCH

Located in Beijing International Business Center, Beijing branch is the domestic sales & marketing center of SNY VALVE, and plays a comprehensive role in market promotion, sales, and set up distribution system.

Environment, Health & Safety

Quality, health, safety and environment management have top priority in our growth plans and all our endeavors. SNY VALVE is committed to providing a safe, healthy and positive working environment for our employees and those under our care. SNY VALVE has established management policy and action guidelines regarding environmental issues. We view "harmony with nature" and "sustainable development" as integral to the pursuit of our business.

Social Responsibility

Constantly taking social responsibility, SNY VALVE has set up "SNY Scholarship" through cooperating with local university for aiding excellent students in straitened circumstance.

QUALIFICATION & CERTIFICATE

SNY VALVE is committed to provide the highest possible quality industrial valves at the most cost effective way to customers worldwide. We have been certified with ISO9001, ISO14001, OHSAS18001, CE/PED, API6D, API602, API600,ABS, CU-TR,TS,and obtained API607 /API 6Fa fire safe approvals.



QUALITY CONTROL

SNY VALVE has been certified with ISO 9001 & API Spec. Q1 for quality management system. SNY quality assurance and quality control capabilities are followed and implemented based on global standards. We have

- State-of-the-art Quality Control Test Center
- In-house Non-destructive Test Equipment & ASNT Certified Personnel
- Pressure Test Equipment
- Special Testing Equipment for Product Validation

Raw material quality is ensured by a stringent vendor qualification system. By NDT (Radiographic Test, Magnetic Particle Test, Penetrant Test & Ultrasonic Test), Positive Material Identification (PMI), Tensile Test, and Hardness Test to evaluate samples & small lot production, as well as surveillance audits and sample check to ensure the compliance as per customers' requirements.

Valves manufactured at SNY valves are 100% pressure-tested. The product design has been validated through various special testing as per applicable industry standards such as Fire Safe Test, Low Temperature Test, Cryogenic Test, Vacuum Test, Fugitive Emission Test, High Pressure Gas Test, Elevated Temperature Test and so on.



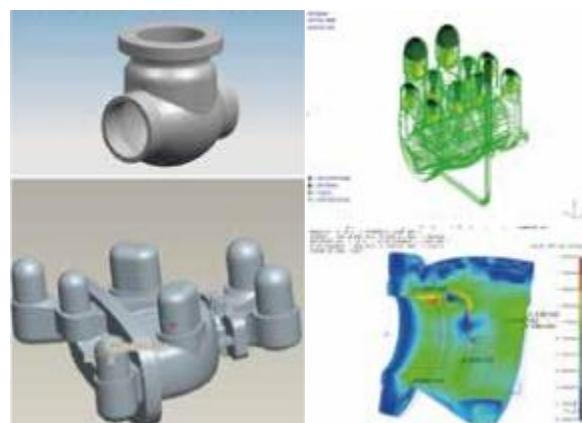


SNY VALVE always focus on technical innovation. It has one province technique center and one cryogenic ball valve engineering center. Technical team utilizes the most advanced computer technology to improve the existing products and develop the new products. Up to now, SNY VALVE possesses more than 90 patents.

SNY VALVE design philosophy is to develop a safe and cost-efficient valve. Through the latest software of 3D, CAD & Solid works, engineer is available to fictitiously check and verify if the parts & valves can be assembled precisely before they are actually made, which can speed up the development process & saves the costs.

SNY VALVE technical personnel are always ready to offer on-line or on-site technical training and support for all of our customers.

TECHNICAL INNOVATION



TECHNOLOGY PATENT



PATENT



FACTORY MANAGEMENT & FACILITIES

SNY VALVE organically integrates the advanced manufacturing equipment and the staffs. By using the most advanced hardware and software, centralizing the production resources, increasing our efficiency and continuously improving the process control, we are able to meet or exceed the different requirement of customers. Company implement 6S management onsite to reduce waste and improve process control. Advanced management software such as K/3 (ERP) & OA (Collaborative Management Software) play an important role in SNY VALVE. Synchronized supervision & management are performed through the whole manufacturing process to improve productivity & efficiency. Our business philosophy is: stable & reliable quality, on-time delivery and reasonable price.

SNY VALVE have more than 300 sets(units) equipment, such as CNC machining Center, CNC lathes, CNC boring-milling machine, general lathes, large-scale vertical lathe, sphere grinders, plasma overlaying welding equipment and heat treatment equipment, etc. CNC machining Center is Japanese FANUC 0I-MD NC, and the three-way coupling is from Germany S+J/R+W, which realizes the automatic continuous milling of plane, groove, bevel, and a variety of linear processing, and ensure the accuracy of ball.



SNY VALVE realizes the casting quality is the most important to valve life, safety of personnel and environment, especially in the high temperature and high pressure applications. So our strict customers always audit the foundries at first from our approved suppliers before order execution.

SNY VALVE has established unique strategic supply chain management system. We have strategically foundries and one own foundry. They each have a full set of quality inspection facilities, such as spectrometer, NDT and PMI inspection, etc.

INTRODUCTION OF FOUNDRIES





INDUSTRY APPLICATIONS

- Oil & Gas Pipeline
- Refinery
- Petrochemical
- Power
- Chemical
- LNG & LPG
- Mining
- Metallurgy
- Aerospace
- Water Treatment
- Offshore Engineering



Figure Numbers

	Normal Size	Valve Type	Normal Pressure	End Connection	Operation	Special Code	Body Material	Trim	Special Requirement
	A	B	C	D	E	F	G	H	I
Example:	8	G A	2 5	B 1 6 0	G	B W	W C 6	T 8	N C

Explanation: NPS 8, Pressure Seal Gate Valve, Class 2500, Butt-welding End, SCH160, Electric Actuator Operated, Belleville Spring at Packing Bolt Shall Be Anti-loosening, Body Material WC6, Trim No.8, NACE Requirement

A Normal Size

2	NPS2	26	NPS26	D50	DN50	D650	DN650
2 1/2	NPS2 1/2	28	NPS28	D65	DN65	D700	DN700
3	NPS3	30	NPS30	D80	DN80	D750	DN750
4	NPS4	32	NPS32	D100	DN100	D800	DN800
5	NPS5	34	NPS34	D125	DN125	D850	DN850
6	NPS6	36	NPS36	D150	DN150	D900	DN900
8	NPS8	38	NPS38	D200	DN200	D950	DN950
10	NPS10	40	NPS40	D250	DN250	D1000	DN1000
12	NPS12	42	NPS42	D300	DN300	D1050	DN1050
14	NPS14	44	NPS44	D350	DN350	D1100	DN1100
16	NPS16	46	NPS46	D400	DN400	D1150	DN1050
18	NPS18	48	NPS48	D450	DN450	D1200	DN1200
20	NPS20	50	NPS50	D500	DN500	D1250	DN1250
22	NPS22	52	NPS52	D550	DN550	D1300	DN1300
24	NPS24	54	NPS54	D600	DN600	D1350	DN1350

C Normal Pressure

6	Class600	-10	PN(DIN)10	-110	PN(ANSI)110
8	Class800	-16	PN(DIN)16	-150	PN(ANSI)150
9	Class900	-25	PN(DIN)25	-260	PN(ANSI)260
15	Class1500	-40	PN(DIN)40	-420	PN(ANSI)420
25	Class2500	-63	PN(DIN)63		
		-100	PN(DIN)100		

D End Connection

R	RF Flanged B**	B** Butt-welding(** is the pipe nominal size or can be described as OD*Wall Thickness)
J	RTJ Flanged	

E Operation

Default	Lever/Handle/Handwheel	B	Bare Stem
G	Gearbox	P	Pneumatic Actuator
E	Electric Actuator	H	Hydraulic Actuator

Note: check valve is default.

G Body Material

WCA	A216 WCA	A105	A105
WCB	A216 WCB	LF2	A320 LF2
WCC	A216 WCC	F22	A182 F22
LCB	A352 LCB	F316	A182 F316
LCC	A352 LCC	F51	A182 F51
WC6	A217 WC6	F53	A182 F53
WC9	A217 WC9	F5	A182 F5
C12	A217 C12	F9	A182 F9
C12A	A217 C12A		

I Special Requirement

B7M/2HM	bolt&nut material is B7M/2HM
BZ	galvanized bolt
BN	nickelplated bolt&nut
BP	PTFE plated bolt
NC	NACE Requirement

B Valve Type

GAP	Pressure Seal Gate Valve
LBP	T Type Pressure Seal Globe Valve
LYP	Y Type Pressure Seal Globe Valve
CKP	Pressure Seal Swing Check Valve
CLP	Pressure Seal Lift Check Valve
CTP	Pressure Seal Tilting Check Valve

F Special Code

B16.47B	ASME B16.47B standard end flange
BW	Belleville spring at packing bolt shall be anti-loosening
CE	valves exported to EU, and shall be CE marked.
CH	closure member (gate/wedge/disc) with pressure relief hole
CW**	sprocket, ** is the dimension from the stem center or
	Gearbox input shaft to the bottom of the chain link
LN**	non-standard face to face/end to end dimension, ** is the
	dimension data FN No machining on raised face
SH	SHELL requirement
WP**	bypass,**is the bypass size

H Trim Material

In accordance with API 600. Other materials are available upon request.



PART 1

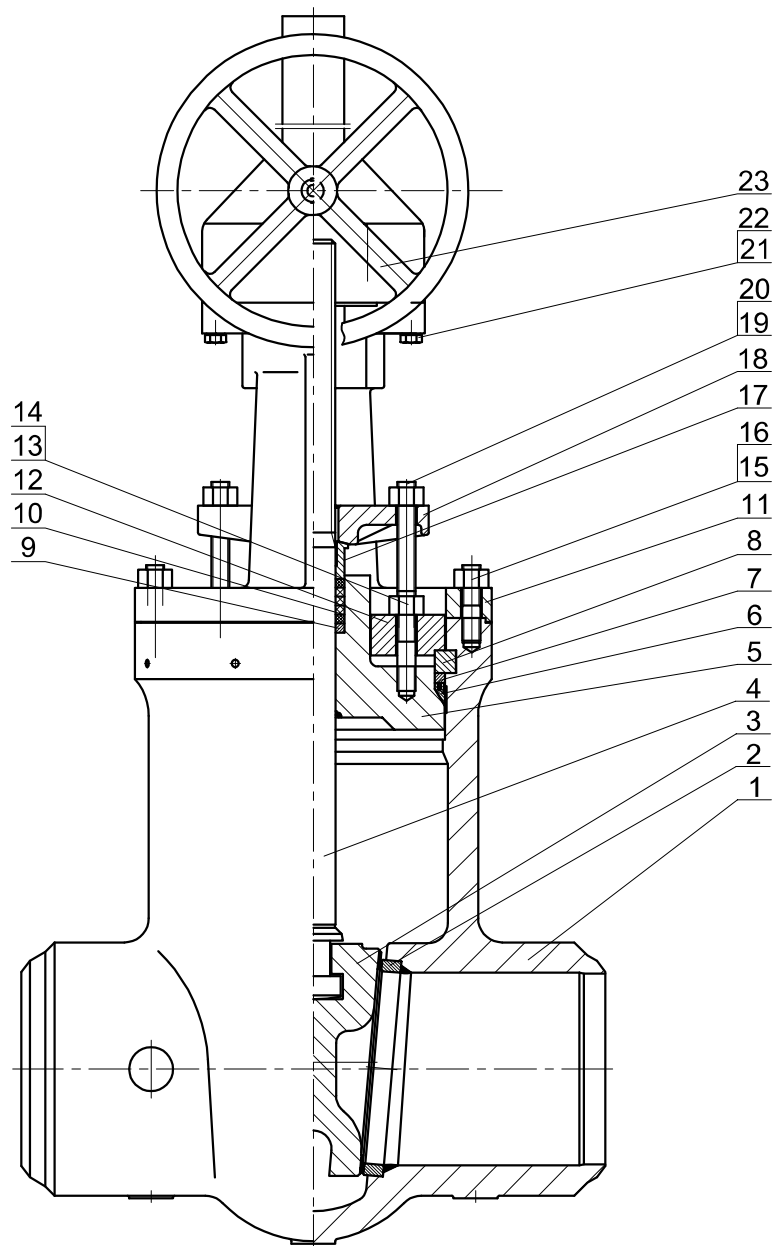


Design Standard	
Basic Design	API600 /ASME B16.34
Face to Face/End to End	ASME B16.10
Flanged End	ASME B16.5/ASME B16.47
Buttwelding End	ASME B16.25
Pressure-temperature Rating	ASME B16.34
Inspection and Testing	API 598

Pressure Seal Gate Valve

- 1.Segmental thrust ring absorbs the outward thrust along the stem generated by the internal pressure.
- 2.Thrust rings to prevent deformation of the gaskets.
- 3.Stainless steel internals to ensure soundness and corrosion-resistance in the vital body sealing zone for carbon and alloy steel valves.
- 4.Soft steel gasket seal to provide large contact area for a perfect sealing.
- 5.Anti-blowout with collar design.
- 6.Flexible wedge to compensate for seat face distortion and body deformation due to pipe stress.
- 7.Hard-faced seat ring
- 8.By-pass and drain valve are available when required

General Assembly Drawing

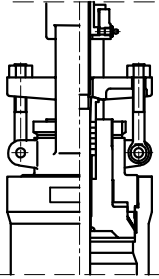
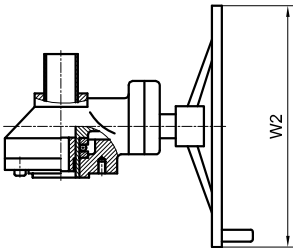
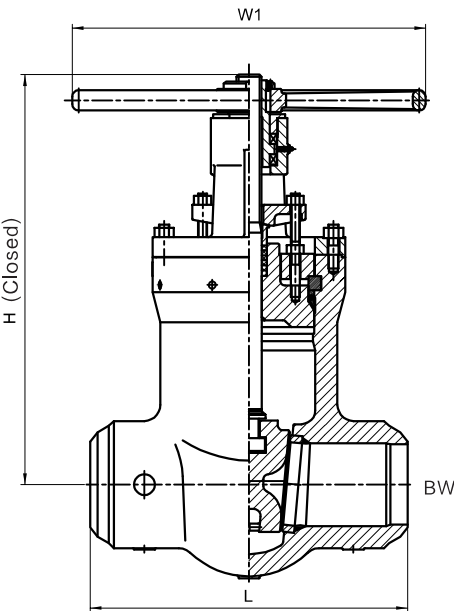


Material of Construction

Part No.	Part Name	Carbon Steel	Stainless Steel	High Temperature
1	Body	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8M	ASTM A217 Gr.C12A
2	Seat	ASTM A105+HF*	ASTM A182 F316+HF*	ASTM A182 F91+HF*
3	Wedge	ASTM A216 Gr.WCB+HF*	ASTM A351 Gr.CF8M	ASTM A217 Gr.C12A+HF*
4	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F6a
5	Bonnet	ASTM A105	ASTM A182 F316	ASTM A182 F91
6	Seal Ring	ASTM A276 Type 304L	ASTM A182 F316L	ASTM A276 Type 304L
7	Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
8	Segmental Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
9	Packing Gasket	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
10	Packing	Graphite	Graphite	Graphite
11	Yoke	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8	ASTM A217 Gr.C12A
12	Support Plate	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
13	Stud	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
14	Nut	ASTM A194 Gr.2H	ASTM A194 Gr.8	ASTM A194 Gr.7
15	Stud	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
16	Nut	ASTM A194 Gr.2H	ASTM A194 Gr.8	ASTM A194 Gr.7
17	Packing Gland	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
18	Gland Flange	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8	ASTM A216 Gr.WCB
19	Bolt	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
20	Nut	ASTM A194 Gr.2H	ASTM A194 Gr.8	ASTM A194 Gr.7
21	Eye Bolt	Carbon Steel	Carbon Steel	Carbon Steel
22	Washer	Carbon Steel	Carbon Steel	Carbon Steel
23	Gear Opertion	Assembly	Assembly	Assembly

*HF: Hard-faced with stellite 6 or equivalent.

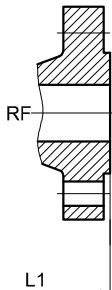
Dimension & Weight



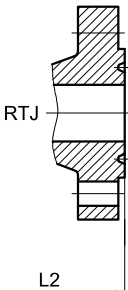
NPS ≤ 4

Gear Operation

Pressure Rating	Standard	Optional
CLASS 600	NPS ≥ 8	NPS 4-6
CLASS 900		
CLASS 1500		
CLASS 2500		



L1

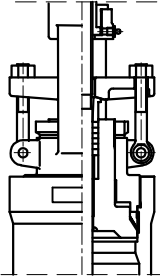
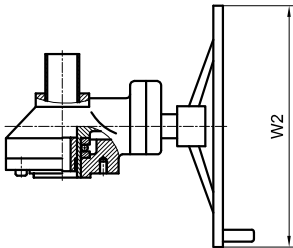
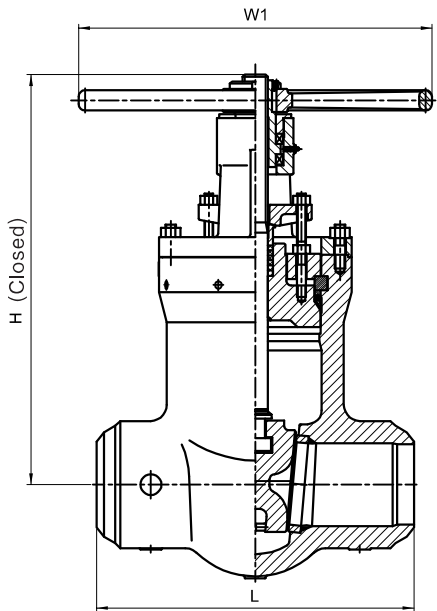


L2

CLASS 600

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	178	7.01	292	11.50	295	11.62	254	10.00	305	12.01	344	13.54	68	150
80	3	254	10.00	356	14.00	359	14.12	305	12.00	305	12.01	516	20.31	93	205
100	4	305	12.00	432	17.00	435	17.12	356	14.00	305	12.01	620	24.41	122	269
150	6	457	18.00	559	22.00	562	22.12	356	14.00	310	12.20	700	27.56	210	463
200	8	584	23.00	660	26.00	663	26.12	460	18.00	310	12.20	828	32.60	323	712
250	10	711	28.00	787	31.00	790	31.12	460	18.00	460	18.11	975	38.39	495	1091
300	12	813	32.00	838	33.00	841	33.12	610	24.00	540	21.26	1129	44.45	780	1720
350	14	889	35.00	889	35.00	892	35.12	610	24.00	610	24.02	1337	52.64	1080	2381
400	16	991	39.02	991	39.00	994	39.12	610	24.00	610	24.02	1399	55.08	1325	2921
450	18	1092	42.99	1092	43.00	1095	43.12	710	28.00	710	27.95	1668	65.67	1705	3759
500	20	1194	47.00	1194	47.00	1200	47.25	710	28.00	710	27.95	1671	65.79	2130	4696
600	24	1397	55.00	1397	55.00	1407	55.38	810	32.00	810	31.89	2173	85.55	2826	6230
650	26	1448	57.00	1448	57.00	1461	57.50	810	32.00	810	31.89	2451	96.50	3413	7524
700	28	1549	61.00	1549	61.00	1562	61.50	1000	39.40	810	31.89	2702	106.38	3726	8214
750	30	1651	65.00	1651	65.00	1664	65.50	1000	39.40	810	31.89	2985	117.52	3920	8642

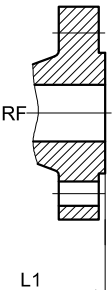
Dimension & Weight



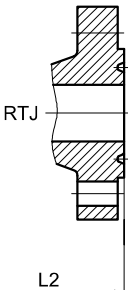
NPS ≤ 4

Gear Operation

Pressure Rating	Standard	Optional
CLASS 600	NPS ≥ 8	NPS 4-6
CLASS 900		
CLASS 1500		
CLASS 2500		



L1

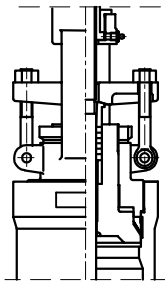
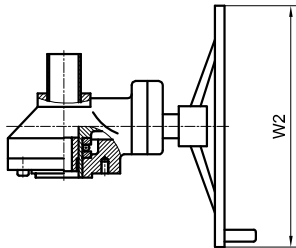
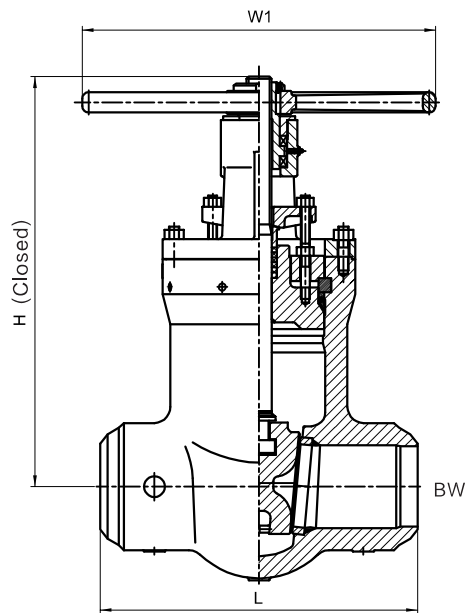


L2

CLASS 900

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	356	14.00	305	12.01	499	19.65	72	159
80	3	305	12.00	381	15.00	384	15.12	356	14.00	305	12.01	578	22.76	98	216
100	4	356	14.00	457	18.00	460	18.12	406	16.00	400	15.75	640	25.20	146	322
150	6	508	20.00	610	24.00	613	24.12	508	20.00	310	12.20	707	27.83	288	635
200	8	660	26.00	737	29.00	740	29.12	457	18.00	310	12.20	854	33.62	573	1263
250	10	787	31.00	838	33.00	841	33.12	610	24.00	610	24.02	1051	41.38	895	1973
300	12	914	36.00	965	38.00	968	38.12	610	24.00	610	24.02	1182	46.54	1173	2586
350	14	991	39.00	1029	40.50	1038	40.88	610	24.00	610	24.02	1317	51.85	1675	3693
400	16	1092	43.00	1130	44.50	1140	44.88	710	28.00	710	27.95	1467	57.76	1840	4057
450	18	1219	48.00	1219	48.00	1232	48.50	810	32.00	810	31.89	1738	68.43	2342	5163
500	20	1321	52.00	1321	52.00	1334	52.50	810	32.00	810	31.89	1803	70.98	3135	6911
600	24	1549	61.00	1549	61.00	1568	61.75	810	32.00	810	31.89	2070	81.50	4850	10692
650	26	1638	64.50	1638	64.50	1661	65.38	1000	39.40	1000	39.37	2512	98.90	5870	12941
700	28	1727	68.00	1727	68.00	1750	68.88	1000	39.40	1000	39.37	2785	109.65	6985	15399
750	30	1816	71.50	1816	71.50	1838	72.38	1200	47.20	1000	39.37	3051	120.12	8190	18056

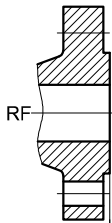
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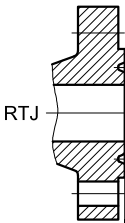
NPS ≤ 4

Gear Operation

Pressure Rating	Standard	Optional
CLASS 600	NPS ≥ 8	NPS 4-6
CLASS 900		
CLASS 1500		
CLASS 2500		



L1

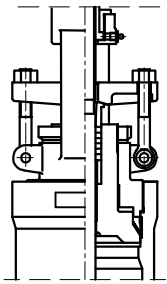
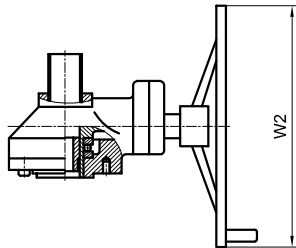
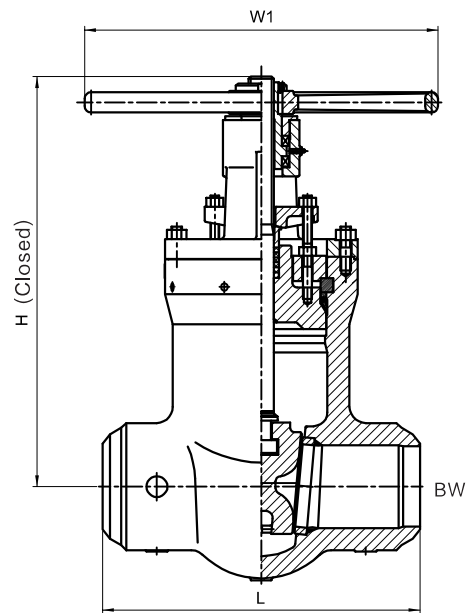


L2

CLASS 1500

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	356	14.00	305	12.01	499	19.65	75	165
80	3	305	12.00	470	18.50	473	18.62	406	16.00	310	12.20	603	23.74	129	284
100	4	406	16.00	546	21.50	549	21.62	508	20.00	310	12.20	703	27.68	195	430
150	6	559	22.00	705	27.75	711	28.00	560	22.00	310	12.20	720	28.35	336	741
200	8	711	28.00	832	32.75	842	33.13	610	24.00	610	24.02	883	34.76	660	1455
250	10	864	34.00	991	39.00	1000	39.38	710	28.00	710	27.95	1075	42.32	1120	2469
300	12	991	39.00	1130	44.50	1146	45.12	710	28.00	710	27.95	1281	50.43	1572	3466
350	14	1067	42.00	1257	49.50	1276	50.25	810	32.00	810	31.89	1540	60.63	2110	4652
400	16	1194	47.00	1384	54.50	1407	55.38	810	32.00	810	31.89	1670	65.75	2840	6261
450	18	1346	53.00	1537	60.50	1559	61.38	810	32.00	810	31.89	1700	66.93	3900	8598
500	20	1473	58.00	1664	65.50	1686	66.38	1000	39.40	1000	39.37	1890	74.41	4755	10483
600	24	1676	66.00	1943	76.50	1972	77.62	1000	39.40	1000	39.37	2248	88.50	5634	12421
650	26	1676	66.00	/	/	/	/	1000	39.40	1000	39.37	2415	95.08	8600	18960
700	28	1778	70.00	/	/	/	/	1000	39.40	1000	39.37	2659	104.69	9300	20503
800	32	1930	76.00	/	/	/	/	1200	47.20	1200	47.24	2885	113.58	14800	32628

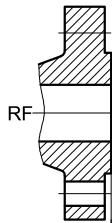
Dimension & Weight



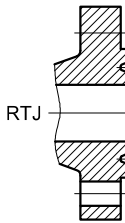
NPS ≤ 4

Gear Operation

Pressure Rating	Standard	Optional
CLASS 600	NPS ≥ 8	NPS 4-6
CLASS 900		
CLASS 1500		
CLASS 2500		



L1



L2

CLASS 2500

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	279	11.00	451	17.75	454	17.87	356	14.00	305	12.01	505	19.88	96	212
80	3	368	14.50	578	22.75	584	23.00	457	18.00	460	18.11	588	23.15	149	328
100	4	457	18.00	673	26.50	683	26.88	508	20.00	460	18.11	717	28.23	168	370
150	6	610	24.00	914	36.00	927	36.50	640	25.20	460	18.11	798	31.42	431	950
200	8	762	30.00	1022	40.25	1038	40.87	610	24.00	610	24.02	991	39.02	835	1841
250	10	914	36.00	1270	50.00	1292	50.88	710	28.00	710	27.95	1162	45.75	1120	2469
300	12	1041	41.00	1422	56.00	1445	56.88	810	32.00	810	31.89	1290	50.79	2197	4844
350	14	1118	44.00	/	/	/	/	810	32.00	810	31.89	1452	57.17	3325	7330
400	16	1245	49.00	/	/	/	/	810	32.00	810	31.89	1556	61.26	4128	9101
450	18	1397	55.00	/	/	/	/	1000	39.40	1000	39.37	1645	64.76	4960	10935
500	20	/	/	/	/	/	/	1000	39.40	1000	39.37	1920	75.59	6154	13567
600	24	/	/	/	/	/	/	1000	39.40	1000	39.37	2315	91.14	8754	19299



Design Standard

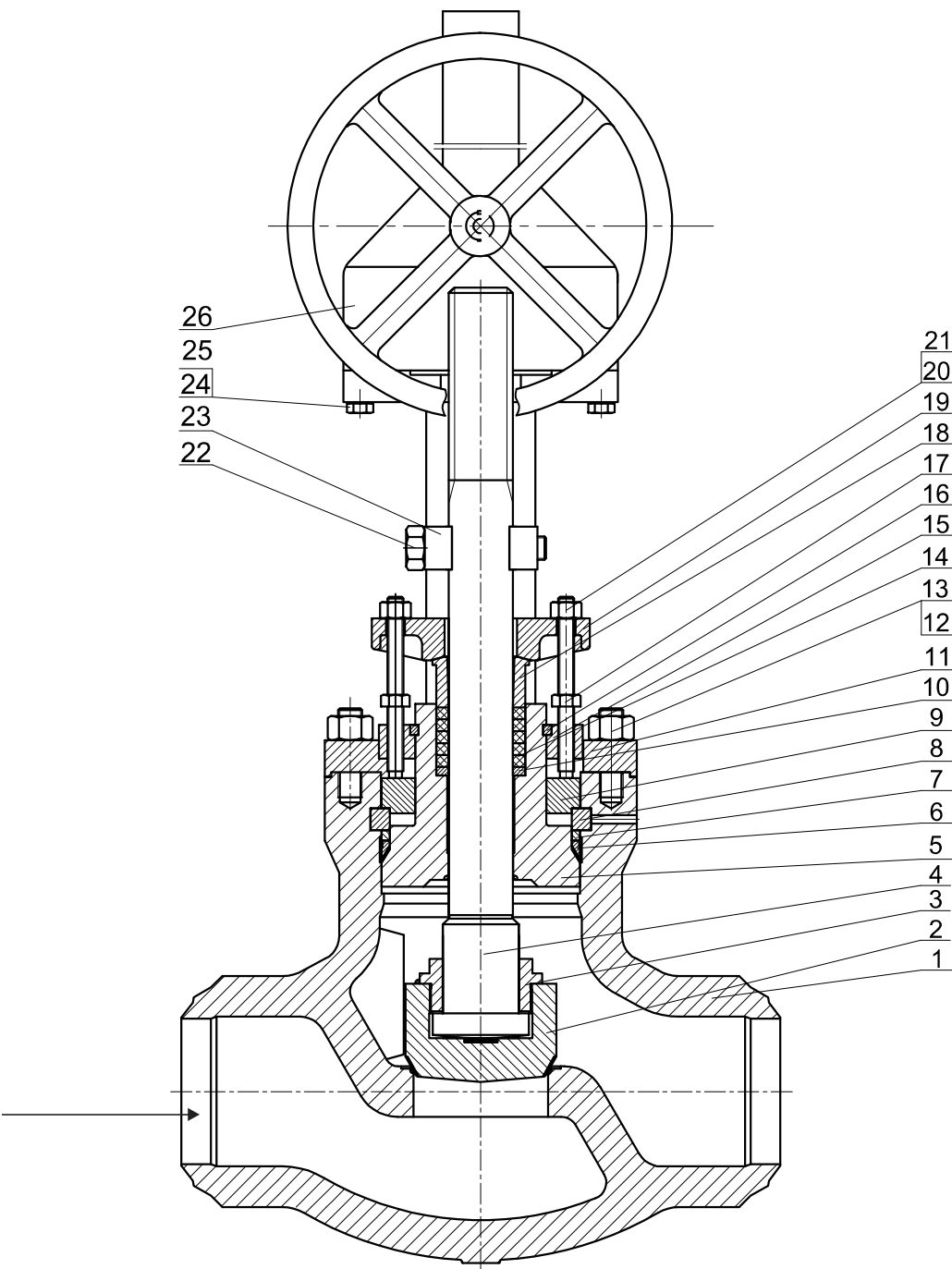
Basic Design	BS 1873 / ASME B16.34
Face to Face/End to End	ASME B16.10
Flanged End	ASME B16.5
Buttwelding End	ASME B16.25
Pressure-temperature Rating	ASME B16.34
Inspection and Test	API 598

PART 2-1

Pressure Seal Globe Valve

- 1.Segmental thrust ring absorbs the outward thrust along the stem generated by the internal pressure.
- 2.Thrust rings to prevent deformation of the gaskets.
- 3.Stainless steel internals to ensure soundness and corrosion-resistance in the vital body sealing zone for carbon and alloy steel valves.
- 4.Soft steel gasket seal to provide large contact area for a perfect sealing.
- 5.Anti-blowout with collar design.
- 6.Compared with the gate valve, globe valve has a simple structure and easy for maintenance.
- 7.Short stroke, and short time for opening and shutoff .
- 8.Sealing surface is not easily worn and abraded during opening and shutoff, with good sealing performance and long service life.
- 9.Disc fully guided reduces the impact of medium onto both disc and stem, with excellent sealing performance.
- 10.By-pass and drain valve are available when required

General Assembly Drawing

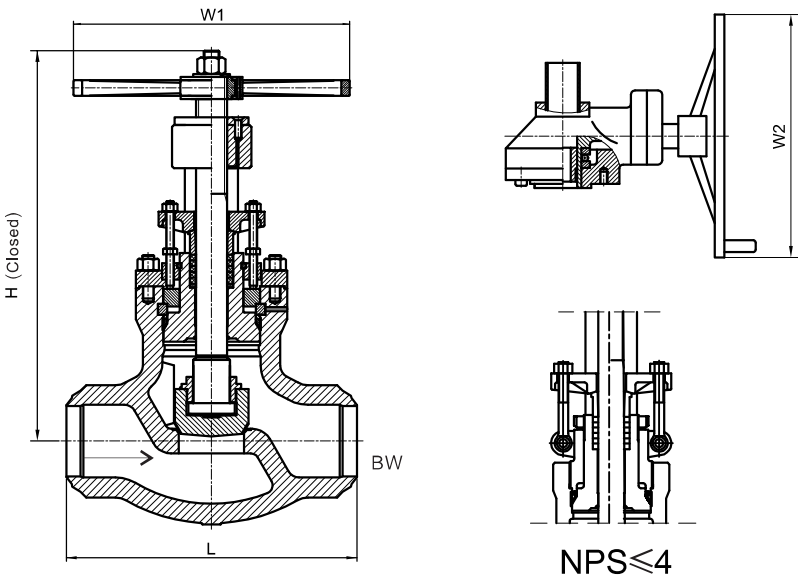


Material of Construction

Part No.	Part Name	Carbon Steel	Stainless Steel	High Temperature
1	Body	ASTM A216 Gr.WCB+HF*	ASTM A351 Gr.CF8M+HF*	ASTM A217 Gr.C12A+HF*
2	Disc	ASTM A105+HF*	ASTM A182 F316+HF*	ASTM A182 F91+HF*
3	Disc Nut	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
4	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F6a
5	Bonnet	ASTM A105	ASTM A182 F316	ASTM A182 F91
6	Seal Ring	ASTM A276 Type 304L	ASTM A182 F316L	ASTM A276 Type 304L
7	Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
8	Segmental Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
9	Support Plate	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
10	Packing Gasket	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
11	Yoke	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8	ASTM A217 Gr.C12A
12	Stud	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
13	Nut	ASTM A194 Gr.2H	ASTM A194 Gr.8	ASTM A194 Gr.7
14	Packing	Flexible Graphite + Braided Graphite	Flexible Graphite + Braided Graphite	Flexible Graphite + Braided Graphite
15	Plate	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
16	Segmental Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
17	Hex Bolt	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
18	Packing Gland	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
19	Gland Flange	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8	ASTM A216 Gr.WCB
20	Eye Bolt	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
21	Eye Bolt Nut	ASTM A194 Gr.2H	ASTM A194 Gr.8	ASTM A194 Gr.7
22	Anti-rotating Plate	ASTM A29 Gr.1035	ASTM A276 Type 304	ASTM A29 Gr.1035
23	Screw	Carbon steel	ASTM A276 Type 304	Carbon steel
24	Bolt	Carbon Steel	Carbon Steel	Carbon Steel
25	Washer	Carbon Steel	Carbon Steel	Carbon Steel
26	Gear Opeirtion	Assembly	Assembly	Assembly

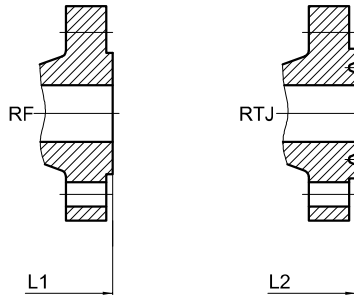
*HF: Hard-faced with stellite 6 or equivalent.

Dimension & Weight



Gear Operation

Pressure Rating	Standard	Optional
CLASS 600	NPS≥8	NPS4-6
CLASS 900	NPS≥8	NPS4-6
CLASS 1500	NPS≥4	NPS2-3
CLASS 2500	NPS≥3	NPS2



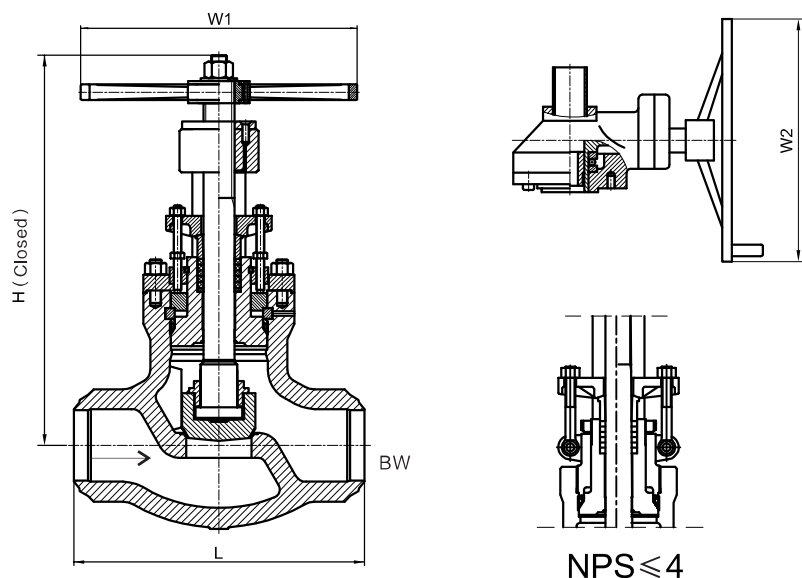
CLASS 600

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	178	7.01	292	11.50	295	11.62	250	9.80	305	12.01	387	15.24	21	46
80	3	254	10.00	356	14.00	359	14.12	508	20.00	400	15.75	461	18.15	48	106
100	4	305	12.00	432	17.00	435	17.12	640	25.20	305	12.01	522	20.55	60	132
150	6	457	18.00	559	22.00	562	22.12	450	17.70	610	24.02	792	31.18	188	414
200	8	584	23.00	660	26.00	663	26.12	610	24.00	610	24.02	832	32.76	289	637
250	10	711	28.00	787	31.00	790	31.12	610	24.00	610	24.02	880	34.65	406	895
300	12	813	32.00	838	33.00	841	33.12	800	31.50	800	31.50	945	37.20	549	1210
350	14	/	/	/	/	/	/	800	31.50	810	31.89	985	38.78	779	1717
400	16	/	/	/	/	/	/	1000	39.40	1000	39.37	1140	44.88	1089	2401

CLASS 900

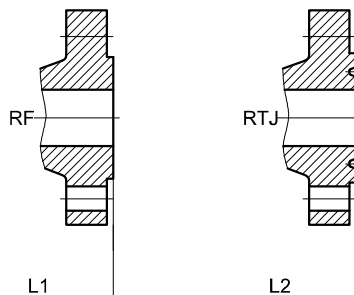
Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	350	13.80	305	12.01	527	20.75	43	96
80	3	305	12.00	381	15.00	384	15.12	350	13.80	400	15.75	527	20.75	85	187
100	4	356	14.00	457	18.00	460	18.12	500	19.70	460	18.11	620	24.41	100	220
150	6	508	20.00	610	24.00	613	24.12	800	31.50	610	24.02	745	29.33	283	624
200	8	660	26.00	737	29.00	740	29.12	610	22.00	610	24.02	854	33.62	480	1058
250	10	787	31.00	838	33.00	841	33.12	560	22.00	810	31.89	1051	41.38	754	1662
300	12	914	36.00	965	38.00	968	38.12	800	31.50	810	31.89	1182	46.54	1082	2385
350	14	991	39.00	1029	40.50	1038	40.88	800	31.50	1000	39.37	1317	51.85	1583	3490
400	16	1092	43.00	1130	44.50	1140	44.88	1000	39.40	1200	47.24	1467	57.76	1962	4325

Dimension & Weight



Gear Operation

Pressure Rating	Standard	Optional
CLASS 600	NPS≥8	NPS4-6
CLASS 900	NPS≥8	NPS4-6
CLASS 1500	NPS≥4	NPS2-3
CLASS 2500	NPS≥3	NPS2

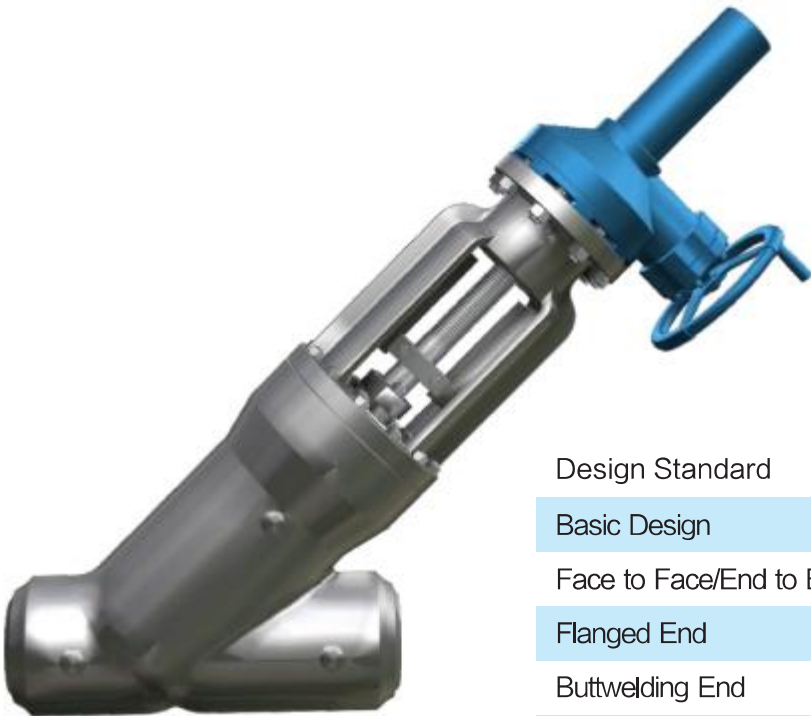


CLASS 1500

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	350	13.80	305	12.01	499	19.65	68	150
80	3	305	12.00	470	18.50	473	18.62	450	17.70	400	15.75	603	23.74	90	198
100	4	406	16.00	533	21.00	536	21.12	450	17.70	460	18.11	620	24.41	195	430
150	6	559	22.00	705	27.75	711	28.00	710	28.00	710	27.95	811	31.93	418	922
200	8	711	28.00	832	32.75	842	33.13	800	31.50	810	31.89	1010	39.76	740	1631
250	10	864	34.00	991	39.00	1000	39.38	800	31.50	810	31.89	1175	46.26	1165	2568
300	12	991	39.00	1130	44.50	1146	45.12	1000	39.40	1000	39.37	1272	50.08	1960	4321
350	14	1067	42.00	1257	49.50	1276	50.25	1000	39.40	1200	47.24	1380	54.33	2583	5695
400	16	1194	47.00	1384	54.50	1419	55.88	1200	47.20	1000	39.37	1529	60.20	2883	6356

CLASS 2500

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	279	11.00	451	17.75	454	17.87	500	19.70	460	18.11	505	19.88	82	181
80	3	368	14.50	578	22.75	584	23.00	460	18.00	610	24.02	588	23.15	188	414
100	4	457	18.00	673	26.50	683	26.88	610	24.00	610	24.02	717	28.23	284	626
150	6	610	24.00	914	36.00	927	36.50	710	28.00	710	27.95	798	31.42	594	1310
200	8	762	30.00	1022	40.25	1038	40.87	800	31.50	810	31.89	1020	40.16	1225	2701
250	10	914	36.00	1270	50.00	1292	50.88	1000	39.40	1000	39.37	1158	45.59	2205	4861
300	12	1041	41.00	1422	56.00	1445	56.88	1000	39.40	1000	39.37	1290	50.79	2376	5238
350	14	1118	44.00	/	/	/	/	1000	47.20	1000	39.37	1454	57.24	2793	6158
400	16	/	/	/	/	/	/	1000	47.20	1000	39.37	1556	61.26	3295	7264



Design Standard

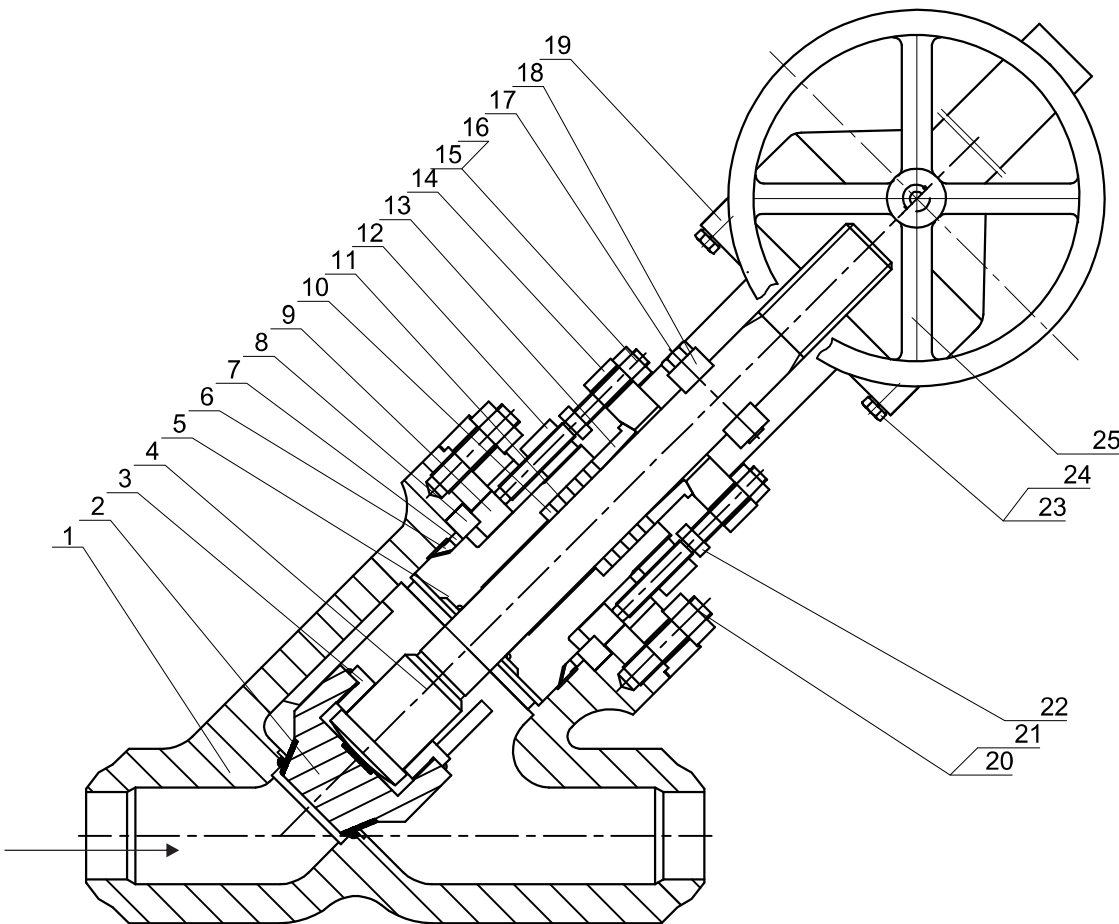
Basic Design	BS 1873 / ASME B16.34
Face to Face/End to End	ASME B16.10
Flanged End	ASME B16.5
Buttwelding End	ASME B16.25
Pressure-temperature Rating	ASME B16.34
Inspection and Test	API 598

PART 2-2

Pressure Seal Y-Pattern Globe Valve

- 1.Segmental thrust ring absorbs the outward thrust along the stem generated by the internal pressure.
- 2.Thrust rings to prevent deformation of the gaskets.
- 3.Stainless steel internals to ensure soundness and corrosion-resistance in the vital body sealing zone for carbon and alloy steel valves.
- 4.Soft steel gasket seal to provide large contact area for a perfect sealing.
- 5.Anti-blowout with collar design.
- 6.Compared with the gate valve, globe valve has a simple structure and easy for maintenance.
- 7.Short stroke, and short time for opening and shutoff .
- 8.Sealing surface is not easily worn and abraded during opening and shutoff, with good sealing performance and long service life.
- 9.Y-pattern design reduces the resistance of the flow.
- 10.Disc fully guided reduces the impact of medium onto both disc and stem, with excellent sealing performance.
- 11.Seat ring is overlay welded with Stellite 6 or equivalent.
- 12.By-pass and drain valve are available when required

General Assembly Drawing

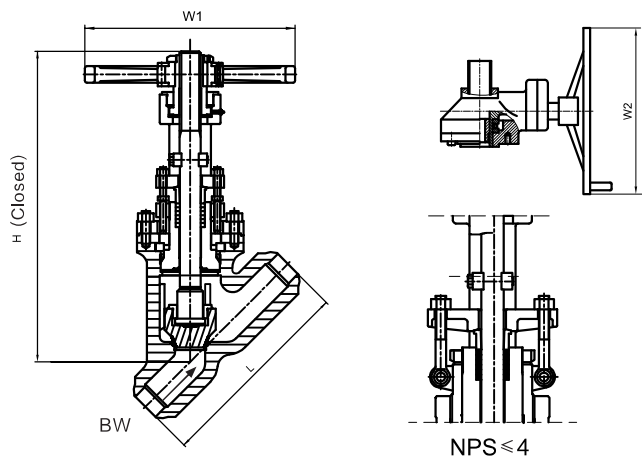


Material of Construction

Part No.	Part Name	Carbon Steel	Stainless Steel	High Temperature
1	Body	ASTM A216 Gr.WCB+HF*	ASTM A351 Gr.CF8M+HF*	ASTM A217 Gr.C12A+HF*
2	Disc	ASTM A105+HF*	ASTM A182 F316+HF*	ASTM A182 F91+HF*
3	Disc Cover	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
4	Stem	ASTM A182 F6a	ASTM A182 F316	ASTM A182 F6a
5	Bonnet	ASTM A105	ASTM A182 F316	ASTM A182 F91
6	Seal Ring	ASTM A276 Type 304L	ASTM A182 F316L	ASTM A276 Type 304L
7	Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
8	Segmental Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
9	Support Plate	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
10	Packing Gasket	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
11	Packing	Graphite	Graphite	Graphite
12	Plate	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
13	Packing Gland	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
14	Gland Flange	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8	ASTM A216 Gr.WCB
15	Eye Bolt	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
16	Eye Bolt Nut	ASTM A194 Gr.2H	ASTM A194 Gr.8	ASTM A194 Gr.7
17	Hex Bolt	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
18	Clamp Plate	ASTM A29 Gr.1035	ASTM A276 Type 304	ASTM A29 Gr.1035
19	Yoke	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8	ASTM A217 Gr.C12A
20	Stud	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
21	Nut	ASTM A194 Gr.2H	ASTM A194 Gr.8	ASTM A194 Gr.7
22	Screw	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
23	Bolt	Carbon Steel	Carbon Steel	Carbon Steel
24	Washer	Carbon Steel	Carbon Steel	Carbon Steel
25	Gear Opeition	Assembly	Assembly	Assembly

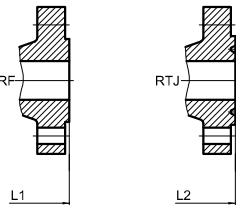
*HF: Hard–faced with stellite 6 or equivalent.

Dimension & Weight



Gear Operation

Pressure Rating	Standard	Optional
CLASS 600	NPS≥8	NPS4-6
CLASS 900	NPS≥8	NPS4-6
CLASS 1500	NPS≥4	NPS2-3
CLASS 2500	NPS≥3	NPS2



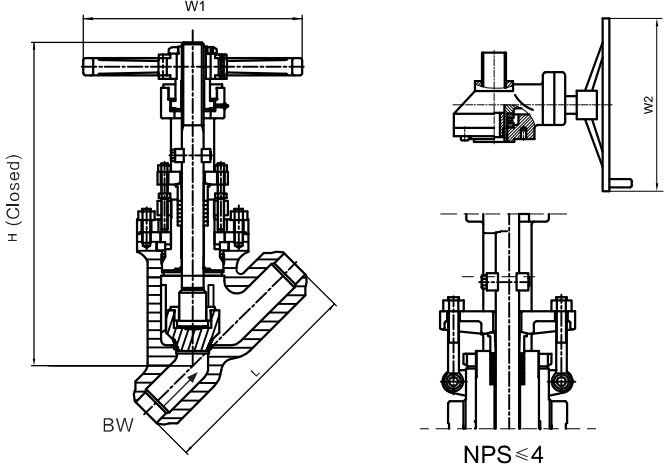
CLASS 600

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	178	7.01	292	11.50	295	11.62	250	9.80	305	12.01	440	17.32	28	62
80	3	254	10.00	356	14.00	359	14.12	350	13.80	400	15.75	515	20.28	50	110
100	4	305	12.00	432	17.00	435	17.12	450	17.70	305	12.01	576	22.68	87	192
150	6	457	18.00	559	22.00	562	22.12	450	17.70	610	24.02	792	31.18	160	353
200	8	584	23.00	660	26.00	663	26.12	610	24.00	610	24.02	886	34.88	279	615
250	10	711	28.00	787	31.00	790	31.12	610	24.00	610	24.02	937	36.89	405	893
300	12	813	32.00	838	33.00	841	33.12	800	31.50	800	31.50	1005	39.57	550	1213
350	14	/	/	/	/	/	/	800	31.50	810	31.89	1432	56.38	860	1896
400	16	/	/	/	/	/	/	1000	39.40	1000	39.37	1845	72.64	1240	2734

CLASS 900

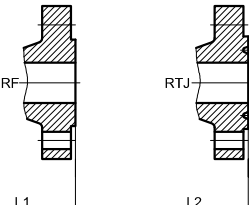
Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	215.90	8.50	368	14.50	371.35	14.62	350	13.80	305	12.01	572	22.52	38	84
80	3	304.80	12.00	381	15.00	384.05	15.12	450	17.70	400	15.75	572	22.52	79	174
100	4	355.60	14.00	457	18.00	460.25	18.12	450	17.70	460	18.11	673	26.50	95	209
150	6	508.00	20.00	610	24.00	612.65	24.12	610	24.00	610	24.02	825	32.48	215	474
200	8	660.40	26.00	737	29.00	739.65	29.12	610	24.00	610	24.02	1044	41.10	485	1069
250	10	787.40	31.00	838	33.00	841.25	33.12	800	31.50	810	31.89	1105	43.50	738	1627
300	12	914.40	36.00	965	38.00	968.25	38.12	800	31.50	810	31.89	1236	48.66	1065	2348
350	14	990.60	39.00	1029	40.50	1038.35	40.88	800	31.50	1000	39.37	1392	54.80	1358	2994
400	16	1092.00	43.00	1130	44.50	1139.95	44.88	1000	39.40	1200	47.24	1518	59.76	1762	3885
450	18	1346.20	53.00	1219	48.00	1231.90	48.50	1000	39.40	1000	39.37	1612	63.46	2445	5390

Dimension & Weight



Gear Operation

Pressure Rating	Standard	Optional
CLASS 600	NPS≥8	NPS4-6
CLASS 900	NPS≥8	NPS4-6
CLASS 1500	NPS≥4	NPS2-3
CLASS 2500	NPS≥3	NPS2



CLASS 1500

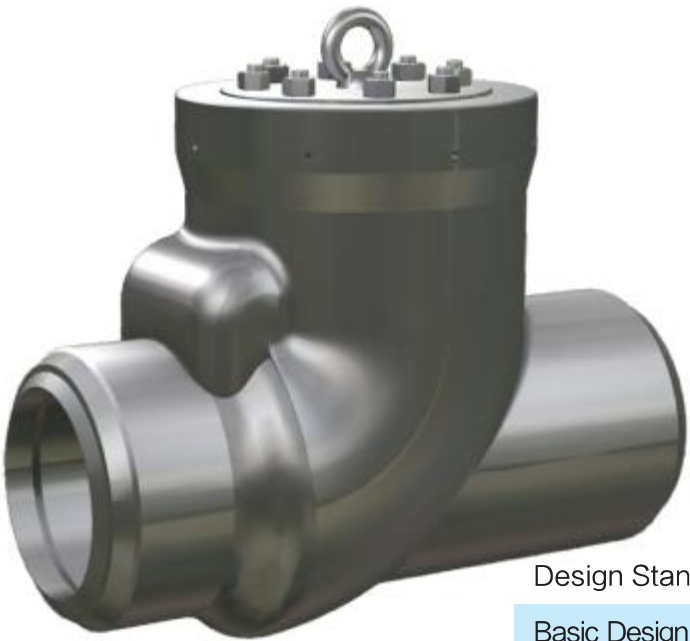
Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	350	13.80	305	12.01	531	20.91	50	110
80	3	305	12.00	470	18.50	473	18.62	450	17.70	400	15.75	618	24.33	72	159
100	4	406	16.00	533	21.00	536	21.12	450	17.70	460	18.11	724	28.50	176	388
150	6	559	22.00	705	27.75	711	28.00	710	28.00	710	27.95	865	34.06	368	811
200	8	711	28.00	832	32.75	842	33.13	800	31.50	810	31.89	1032	40.63	694	1530
250	10	864	34.00	991	39.00	1000	39.38	800	31.50	810	31.89	1350	53.15	1075	2370
300	12	991	39.00	1130	44.50	1146	45.12	1000	39.40	1000	39.37	1477	58.15	1760	3880
350	14	1067	42.00	1257	49.50	1276	50.25	1000	39.40	1200	47.24	1503	59.17	2315	5104
400	16	1194	47.00	1384	54.50	1419	55.88	1200	47.20	1000	39.37	1583	62.32	2623	5783

CLASS 2500

Size		L		L1		L2		W1		W2		H		Approx Weight (BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	279	11.00	451	17.75	454	17.87	500	19.70	460	18.11	559	22.01	80	176
80	3	368	14.50	578	22.75	584	23.00	560	22.00	610	24.02	732	28.82	155	342
100	4	457	18.00	673	26.50	683	26.88	610	24.00	610	24.02	771	30.35	178	392
150	6	610	24.00	914	36.00	927	36.50	760	30.00	810	31.89	1020	40.16	525	1157
200	8	762	30.00	1022	40.25	1038	40.87	800	31.50	810	31.89	1290	50.79	1115	2458
250	10	914	36.00	1270	50.00	1292	50.88	1000	39.40	1000	39.37	1347	53.03	1860	4101
300	12	1041	41.00	1422	56.00	1445	56.88	1000	39.40	1000	39.37	1515	59.65	2130	4696
350	14	1118	44.00	/	/	/	/	1000	47.20	1000	39.37	1709	67.28	2442	5384
400	16	/	/	/	/	/	/	1000	47.20	1000	39.37	1870	73.62	3084	6799



PART 3-1



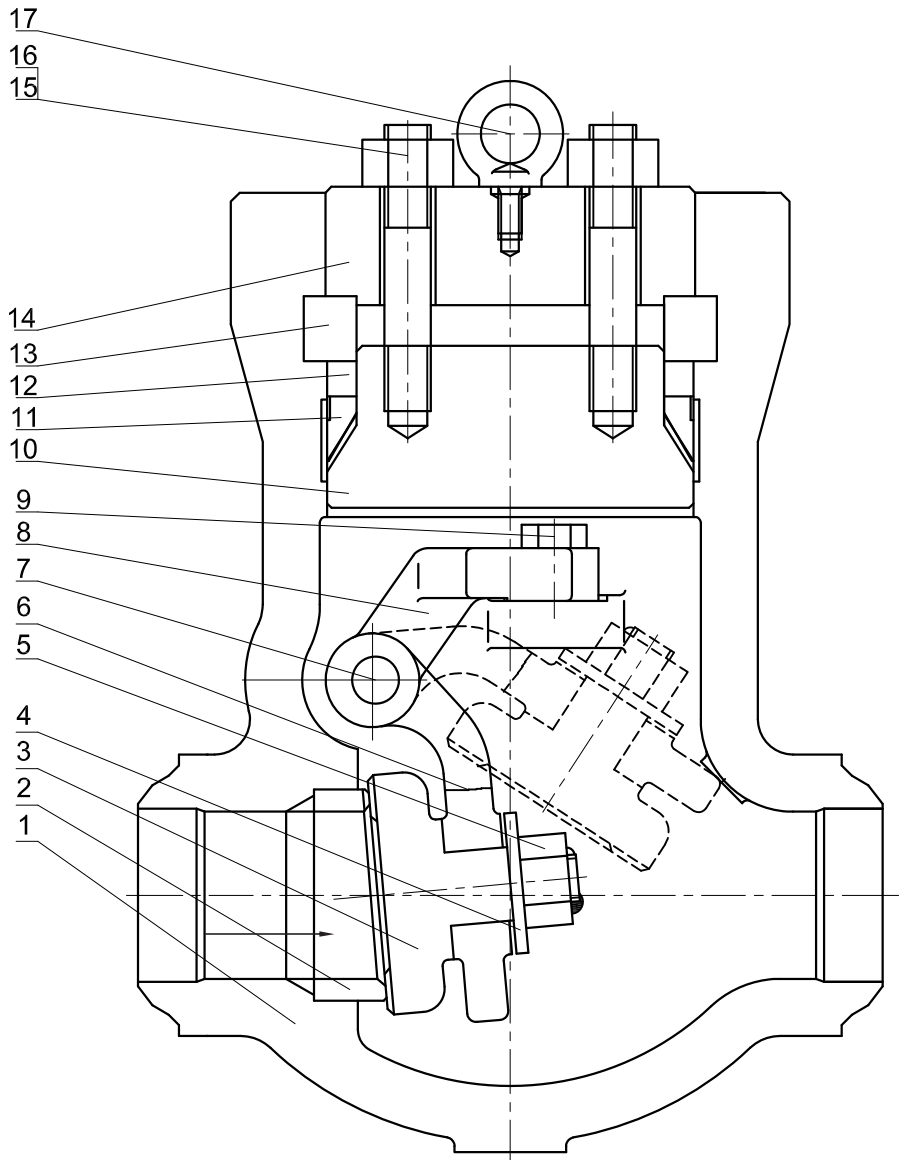
Design Standard

Basic Design	BS 1868 / ASME B16.34
Face to Face/End to End	ASME B16.10
Flanged End	ASME B16.5/ASME B16.47
Buttwelding End	ASME B16.25
Pressure-temperature Rating	ASME B16.34
Inspection and Test	API 598

Pressure Seal Swing Check Valve

- 1.Segmental thrust ring absorbs the outward thrust along the stem generated by the internal pressure.
- 2.Thrust rings to prevent deformation of the gaskets.
- 3.Stainless steel internals to ensure soundness and corrosion-resistance in the vital body sealing zone for carbon and alloy steel valves.
- 4.Soft steel gasket seal to provide large contact area for a perfect sealing.
- 5.Internal hinge pin design to avoid external leakage.
- 6.A hinge and hinge pin provided and mounted internally so as to permit full movement of the disc.
- 7.By-pass and drain valve are available when required

General Assembly Drawing

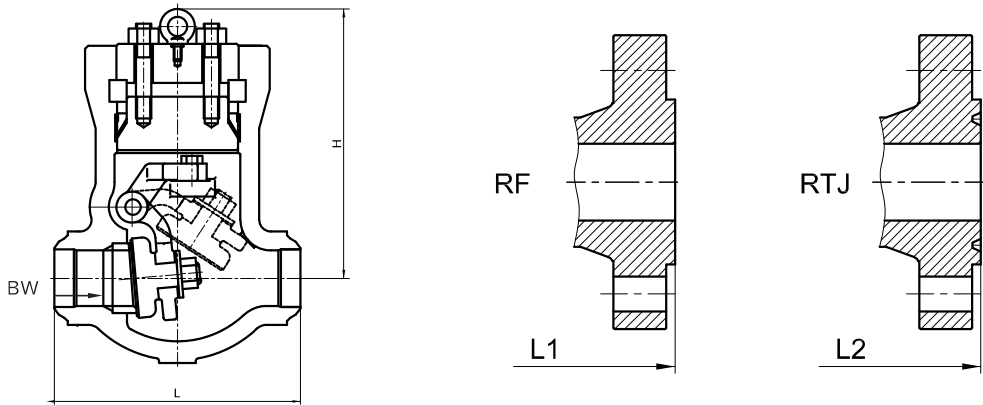


Material of Construction

Part No.	Part Name	Carbon Steel	Stainless Steel	High Temperature
1	Body	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8M	ASTM A217 Gr.C12A
2	Seat	ASTM A105+HF*	ASTM A182 F316+HF*	ASTM A182 F91+HF*
3	Disc	ASTM A216 Gr.WCB+HF*	ASTM A351 Gr.CF8M+HF*	ASTM A217 Gr.C12A+HF*
4	Washer	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a
5	Disc Nut	ASTM A276 Type 304	ASTM A276 Type 304	ASTM A276 Type 304
6	Hinge	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8M	ASTM A217 Gr.C12A
7	Hinge Pin	ASTM A182 F6a	ASTM A182 F6a	ASTM A182 F6a
8	Yoke	ASTM A216 Gr.WCB	ASTM A351 Gr.CF8M	ASTM A217 Gr.C12A
9	Hex Bolt	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
10	Cover	ASTM A105	ASTM A182 F316	ASTM A182 F91
11	Seal Ring	ASTM A276 Type 304L	ASTM A182 F316L	ASTM A276 Type 304L
12	Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
13	Segmental Thrust Ring	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
14	Support Plate	ASTM A182 F6a	ASTM A276 Type 316	ASTM A182 F6a
15	Stud	ASTM A193 Gr.B7	ASTM A193 Gr.B8	ASTM A193 Gr.B16
16	Nut	ASTM A194 Gr.2H	ASTM A194 Gr.8	ASTM A194 Gr.7
17	Lifting Lug	Steel	Steel (galvanized)	Steel

*HF: Hard-faced with stellite 6 or equivalent.

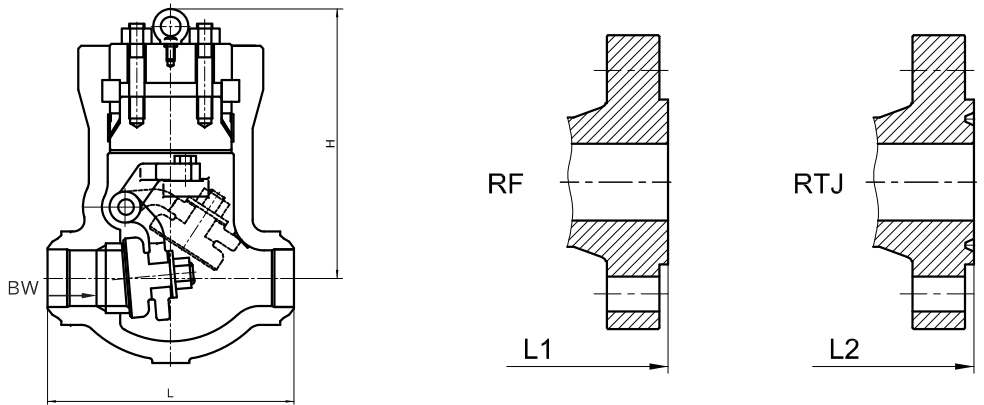
Dimension & Weight



CLASS 600

Size		L		L1		L2		H		Approx Weight(BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	178	7.01	292	11.50	295	11.62	172	6.77	20	44
80	3	254	10.00	356	14.00	359	14.12	235	9.25	32	71
100	4	305	12.00	432	17.00	435	17.12	283	11.14	55	121
150	6	457	18.00	559	22.00	562	22.12	354	13.94	130	287
200	8	584	23.00	660	26.00	663	26.12	370	14.57	260	573
250	10	711	28.00	787	31.00	790	31.12	422	16.61	370	816
300	12	813	32.00	838	33.00	841	33.12	462	18.19	490	1080
350	14	889	35.00	889	35.00	892	35.12	562	22.13	660	1455
400	16	991	39.00	991	39.00	994	39.12	693	27.28	850	1874
450	18	1092	43.00	1092	43.00	1095	43.12	730	28.74	1100	2425
500	20	1194	47.00	1194	47.00	1200	47.25	819	32.24	1490	3285
600	24	1397	55.00	1397	55.00	1407	55.38	949	37.36	2040	4497
650	26	1448	57.00	1448	57.00	1461	57.50	1000	39.37	2500	5512
700	28	1600	63.00	1600	63.00	1613	63.50	1099	43.27	2800	6173
750	30	1651	65.00	1651	65.00	1664	65.50	1200	47.24	3150	6945

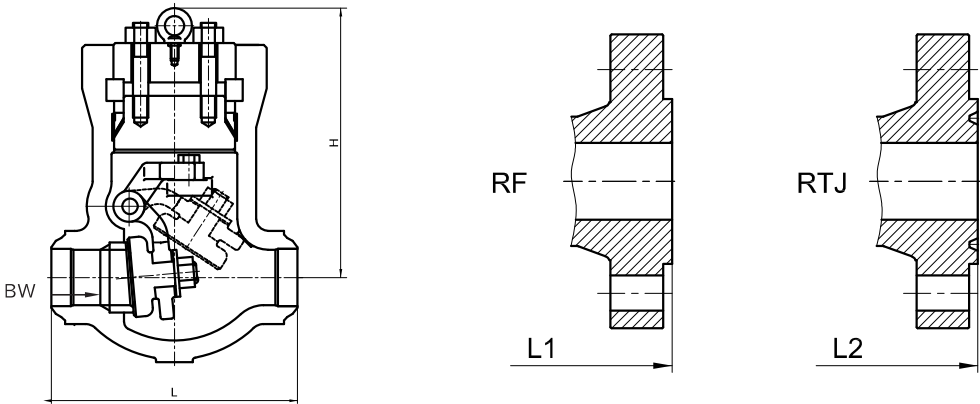
Dimension & Weight



CLASS 900

Size		L		L1		L2		H		Approx Weight(BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	242	9.53	32	71
80	3	305	12.00	381	15.00	384	15.12	258	10.16	50	110
100	4	356	14.00	457	18.00	460	18.12	310	12.20	73	161
150	6	508	20.00	610	24.00	613	24.12	362	14.25	160	353
200	8	660	26.00	737	29.00	740	29.12	422	16.61	276	608
250	10	787	31.00	838	33.00	841	33.12	492	19.37	480	1058
300	12	914	36.00	965	38.00	968	38.12	580	22.83	730	1609
350	14	991	39.00	1029	40.51	1026	40.38	737	29.02	1280	2822
400	16	1092	43.00	1130	44.50	1140	44.88	752	29.61	1420	3131
450	18	1219	48.00	1219	48.00	1232	48.50	851	33.50	1855	4090
500	20	1321	52.00	1321	52.00	1334	52.50	866	34.09	2415	5324
600	24	1549	61.00	1549	61.00	1568	61.75	962	37.87	2913	6422

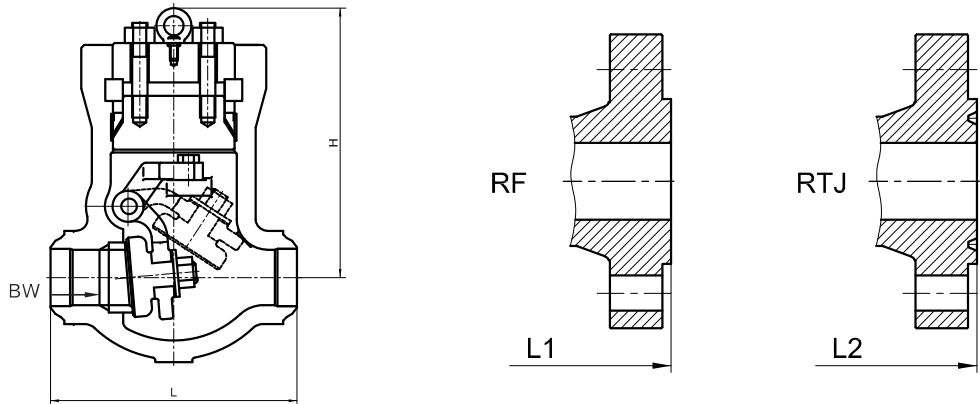
Dimension & Weight



CLASS 1500

Size		L		L1		L2		H		Approx Weight(BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	245	9.65	32	71
80	3	305	12.00	470	18.50	473	18.62	258	10.16	59	130
100	4	406	16.00	546	21.50	549	21.62	314	12.36	96	212
150	6	559	22.00	705	27.75	711	28.00	402	15.83	247	545
200	8	711	28.00	832	32.75	842	33.13	480	18.90	431	950
250	10	864	34.00	991	39.00	1000	39.38	562	22.13	920	2028
300	12	991	39.00	1130	44.49	1146	45.12	645	25.39	1180	2601
350	14	1067	42.00	1257	49.49	1277	50.28	718	28.27	1696	3739
400	16	1194	47.00	1384	54.50	1407	55.38	752	29.61	1875	4134
450	18	1537	60.50	1537	60.50	1559	61.38	877	34.53	2132	4700
500	20	1664	65.50	1664	65.50	1686	66.38	953	37.52	2639	5818
600	24	1943	76.50	1943	76.50	1972	77.62	1105	43.50	3537	7798

Dimension & Weight



CLASS 2500

Size		L		L1		L2		H		Approx Weight(BW)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	279	11.00	451	17.75	454	17.87	245	9.65	41	90
80	3	368	14.50	578	22.75	584	23.00	260	10.24	93	205
100	4	457	18.00	673	26.50	683	26.88	318	12.52	125	276
150	6	610	24.00	914	36.00	927	36.50	410	16.14	288	635
200	8	762	30.00	1022	40.25	1038	40.87	500	19.69	620	1367
250	10	914	36.00	1270	50.00	1292	50.88	637	25.08	1080	2381
300	12	1041	41.00	1422	56.00	1445	56.88	670	26.38	1533	3380



PART 3-2



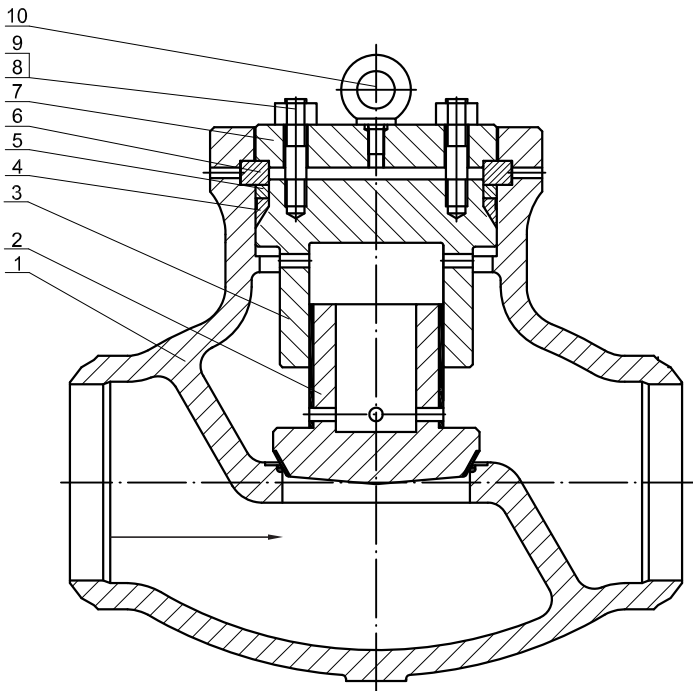
Design Standard

Basic Design	BS 1868 / ASME B16.34
Face to Face/End to End	ASME B16.10
Flanged End	ASME B16.5
Buttwelding End	ASME B16.25
Pressure-temperature Rating	ASME B16.34
Inspection and Test	API 598

Pressure Seal Lift Check Valve

- 1.Segmental thrust ring absorb all the thrust applied by the internal pressure.
- 2.Thrust rings to prevent deformation of the gaskets.
- 3.Stainless steel inlay to ensure soundness and corrosion-resistance in the vital body sealing zone for carbon and alloy steel valves.
- 4.Soft steel gasket seal to provide large contact area for perfect sealing.
- 5.Precise installation and orientation of the disc to minimize the vibration.
- 6.The flow channel is streamline designed to generate the minimum resistance and pressure.
- 7.Disc and seat (integrated) sealing surface satellite overlaid with features of high hardness, erosion resistance and durability.
- 8.By-pass and drain valve are available when required.

General Assembly Drawing

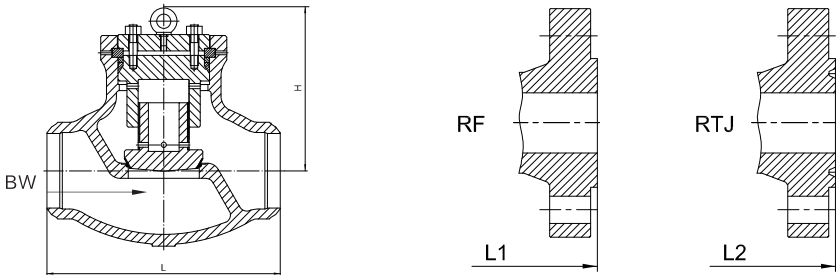


Material of Construction

Part No.	Part Name	Carbon Steel	High Temperature
1	Body	ASTM A216 Gr.WCB+HF*	ASTM A217 Gr.C12A+HF*
2	Disc	ASTM A216 Gr.WCB+HF*	ASTM A217 Gr.C12A+HF*
3	Bonnet	ASTM A105	ASTM A182 F91
4	Seal Ring	ASTM A276 Type 304L	ASTM A276 Type 304L
5	Thrust Ring	ASTM A182 F6a	ASTM A182 F6a
6	Segmental Thrust Ring	ASTM A182 F6a	ASTM A182 F6a
7	Support Plate	ASTM A182 F6a	ASTM A182 F6a
8	Stud	ASTM A193 Gr.B7	ASTM A193 Gr.B16
9	Nut	ASTM A194 Gr.2H	ASTM A194 Gr.7
10	Lifting Lug	Steel	Steel

*HF: Hard-faced with stellite 6 or equivalent.

Dimension & Weight



CLASS 600

Size		L		L1		L2		H		Approx Weight(WB)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
80	3	254	10.00	356	14.00	359	14.12	212	8.35	39	86
100	4	305	12.00	432	17.00	435	17.12	262	10.31	49	108
150	6	457	18.00	559	22.00	562	22.12	319	12.56	124	273
200	8	584	23.00	660	26.00	663	26.12	392	15.43	291	642
250	10	711	28.00	787	31.00	790	31.12	480	18.90	495	1091
300	12	813	32.00	838	33.00	841	33.12	594	23.39	678	1495

CLASS 900

Size		L		L1		L2		H		Approx Weight(WB)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
80	3	305	12.00	381	15.00	384	15.12	211	8.31	42	93
100	4	356	14.00	457	18.00	460	18.12	284	11.18	62	137
150	6	508	20.00	610	24.00	613	24.12	439	17.28	235	518
200	8	660	26.00	737	29.00	740	29.12	508	20.00	369	814
250	10	787	31.00	838	33.00	841	33.12	622	24.49	825	1819
300	12	914	36.00	965	38.00	968	38.12	711	27.99	1085	2392

CLASS 1500

Size		L		L1		L2		H		Approx Weight(WB)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
80	3	305	12.00	470	18.50	473	18.62	248	9.76	59	130
100	4	406	16.00	546	21.50	549	21.62	302	11.89	97	214
150	6	559	22.00	705	27.75	711	28.00	445	17.52	335	739
200	8	711	28.00	832	32.75	842	33.13	533	20.98	886	1953
250	10	864	34.00	991	39.00	1000	39.38	635	25.00	1420	3131
300	12	991	39.00	1118	44.00	1133	44.62	737	29.02	1839	4054

CLASS 2500

Size		L		L1		L2		H		Approx Weight(WB)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
80	3	368	14.50	578	22.75	584	23.00	276	10.87	133	293
100	4	457	18.00	673	26.50	683	26.88	332	13.07	219	483
150	6	610	24.00	914	36.00	927	36.50	465	18.31	420	926
200	8	762	30.00	1022	40.25	1038	40.87	572	22.52	1260	2778
250	10	914	36.00	1270	50.00	1292	50.88	648	25.51	1593	3512
300	12	1041	41.00	1422	56.00	1445	56.88	762	30.00	2212	4877



PART 3-3



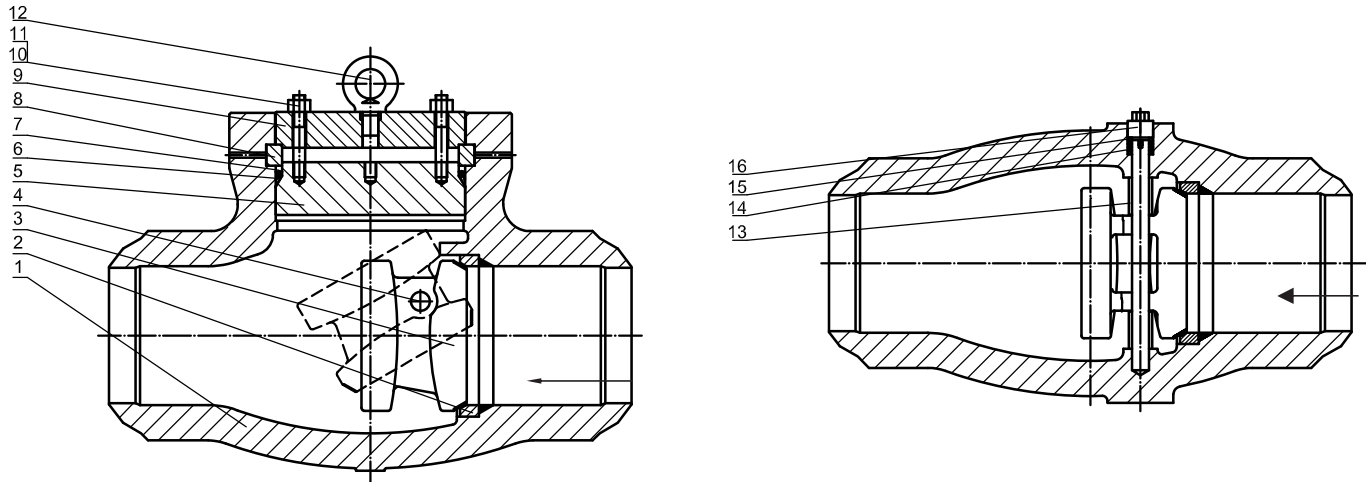
Design Standard

Basic Design	BS 1868 / ASME B16.34
Face to Face/End to End	ASME B16.10
Flanged End	ASME B16.5
Buttwelding End	ASME B16.25
Pressure-temperature Rating	ASME B16.34
Inspection and Test	API 598

Pressure Seal Tilting Disc Check Valve

- 1. Segmental thrust ring absorb all the thrust applied by the internal pressure.
- 2. Thrust rings to prevent deformation of the gaskets.
- 3. Easy to operate and maintain on-line. The rotating center pin is close to the center of gravity, so there is no slide between disc seal cone surface and seat, and water hammer is greatly reduced.
- 4. Conical sealing surface faces to the center automatically, so it can be applied in vertical pipe, which the medium flow direction from bottom to the top.
- 5. Quickly open and close, to effectively prevent medium backflow and reduce the water hammer.

General Assembly Drawing

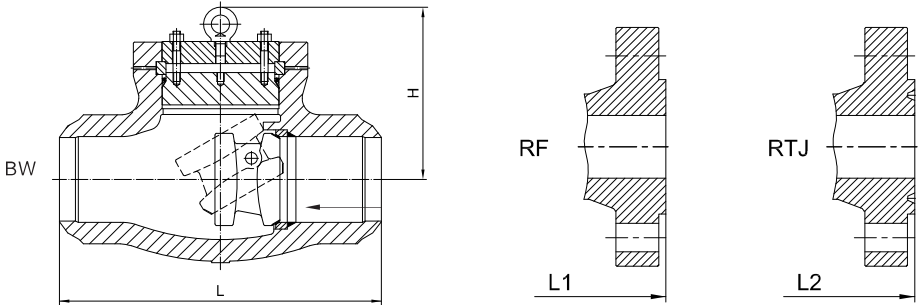


Material of Construction

Part No.	Part Name	Carbon Steel	High Temperature
1	Body	ASTM A216 Gr.WCB	ASTM A217 Gr.C12A
2	Seat	ASTM A105+HF*	ASTM A182 F91+HF*
3	Disc	ASTM A216 Gr.WCB+HF*	ASTM A217 Gr.C12A+HF*
4	Pin	ASTM A182 F6a	ASTM A182 F6a
5	Bonnet	ASTM A105	ASTM A182 F91
6	Seal Ring	ASTM A276 Type 304L	ASTM A276 Type 304L
7	Thrust Ring	ASTM A182 F6a	ASTM A182 F6a
8	Segmental Thrust Ring	ASTM A182 F6a	ASTM A182 F6a
9	Support Plate	ASTM A182 F6a	ASTM A182 F6a
10	Stud	ASTM A193 Gr.B7	ASTM A193 Gr.B16
11	Nut	ASTM A194 Gr.2H	ASTM A194 Gr.7
12	Lifting Lug	Steel	Steel
13	Bushing	ASTM A182 F6a	ASTM A182 F6a
14	Packing	Graphite	Graphite
15	Plug Screw	ASTM A29 Gr.1035	ASTM A182 F6a
16	Plug Screw Washer	ASTM A276 Type 316	ASTM A276 Type 316

*HF: Hard-faced with stellite 6 or equivalent.

Dimension & Weight



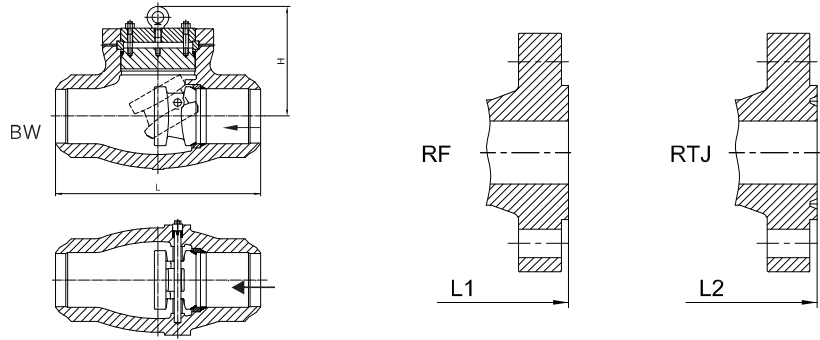
CLASS 600

Size		L		L1		L2		H		Approx Weight(WB)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	178	7.00	292	11.50	295	11.62	165	6.50	22	49
80	3	254	10.00	356	14.00	359	14.12	185	7.28	24	53
100	4	305	12.00	432	17.00	435	17.12	227	8.94	45	99
150	6	457	18.00	559	22.00	562	22.12	298	11.73	110	243
200	8	584	23.00	660	26.00	663	26.12	332	13.07	209	461
250	10	711	28.00	787	31.00	790	31.12	383	15.08	499	1100
300	12	813	32.00	838	33.00	841	33.12	410	16.14	787	1735
350	14	889	35.00	889	35.00	892	35.12	451	17.76	1073	2366
400	16	991	39.00	991	39.00	994	39.12	511	20.12	1356	2989
450	18	1092	43.00	1092	43.00	1095	43.12	552	21.73	1642	3620
500	20	1194	47.00	1194	47.00	1200	47.25	591	23.27	1927	4248
600	24	1397	55.00	1397	55.00	1407	55.38	645	25.39	2667	5880

CLASS 900

Size		L		L1		L2		H		Approx Weight(WB)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	147	5.79	28	62
80	3	305	12.00	381	15.00	384	15.12	198	7.80	39	86
100	4	356	14.00	457	18.00	460	18.12	244	9.61	95	209
150	6	508	20.00	610	24.00	613	24.12	307	12.09	197	434
200	8	660	26.00	737	29.00	740	29.12	342	13.46	229	505
250	10	787	31.00	838	33.00	841	33.12	412	16.22	526	1160
300	12	914	36.00	965	38.00	968	38.12	460	18.11	823	1814
350	14	991	39.00	1016	40.00	1026	40.38	495	19.49	1120	2469
400	16	1092	43.00	1130	44.50	1140	44.88	556	21.89	1417	3124
450	18	1219	48.00	1219	48.00	1232	48.50	581	22.87	1714	3779
500	20	1321	52.00	1321	52.00	1334	52.50	619	24.37	2011	4433
600	24	1549	61.00	1549	61.00	1568	61.75	695	27.36	2948	6499

Dimension & Weight



CLASS 1500

Size		L		L 1		L 2		H		Approx Weight(WB)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	216	8.50	368	14.50	371	14.62	188	7.40	37	82
80	3	305	12.00	470	18.50	473	18.62	194	7.64	45	99
100	4	406	16.00	546	21.50	549	21.62	244	9.61	88	193
150	6	559	22.00	705	27.75	711	28.00	344	13.54	209	461
200	8	711	28.00	832	32.75	842	33.13	412	16.22	405	893
250	10	864	34.00	991	39.00	1000	39.38	478	18.82	638	1407
300	12	991	39.00	1130	44.49	1146	45.12	529	20.83	898	1980
350	14	1067	42.00	1257	49.49	1277	50.28	582	22.91	1519	3349
400	16	1194	47.00	1384	54.50	1407	55.38	634	24.96	2141	4720
450	18	1537	60.50	1537	60.50	1559	61.38	689	27.13	2483	5474
500	20	1664	65.50	1664	65.50	1686	66.38	742	29.21	2948	6499
600	24	1943	76.50	1943	76.50	1972	77.62	786	30.94	4036	8898

CLASS 2500

Size		L		L 1		L 2		H		Approx Weight(WB)	
DN	NPS	mm	in	mm	in	mm	in	mm	in	kg	lb
50	2	279	11.00	451	17.75	454	17.87	190	7.48	40	88
80	3	368	14.50	578	22.75	584	23.00	213	8.39	57	126
100	4	457	18.00	673	26.50	683	26.88	242	9.53	96	212
150	6	610	24.00	914	36.00	927	36.50	347	13.66	241	531
200	8	762	30.00	1022	40.25	1038	40.87	415	16.34	454	1001
250	10	914	36.00	1270	50.00	1292	50.88	491	19.33	775	1709
300	12	1041	41.00	1422	56.00	1445	56.88	557	21.93	1241	2736

Cv Value

口径 NPS	Gate Valve			Globe Valve			Check Valve		
	CLASS 150	CLASS 300	CLASS 600	CLASS 150	CLASS 300	CLASS 600	CLASS 150	CLASS 300	CLASS 600
2	240	240	225	40	40	40	75	75	75
2 1/2	390	390	330	65	65	65	120	120	120
3	560	560	525	95	95	95	170	170	170
4	1020	1020	945	175	175	175	315	315	315
6	2440	2440	2230	410	410	410	760	760	760
8	4500	4500	3990	760	760	760	1390	1390	1390
10	6900	6900	6450	1190	1190	1190	2170	2170	2170
12	10400	10400	9125	1780	1780	1780	3250	3250	3250
14	19400	19400	19400	2330	2330	2330	3700	3700	3700
16	28900	28900	28900	3050	3050	3050	4830	4830	4830
18	36600	36600	36600	3860	3860	3860	6120	6120	6120
20	48820	48820	48820	4760	4760	4760	7560	7560	7560
24	70300	70300	70300	/	/	/	10890	10890	10890
26	82500	82500	82500	/	/	/	12780	12780	12780
28	95700	95700	95700	/	/	/	14810	14810	14810
30	109860	109860	109860	/	/	/	17010	17010	17010
32	123000	123000	123000	/	/	/	/	/	/

Operating Torque Pressure Sealed Gate Valve

NPS	CLASS 600		CLASS 900		CLASS 1500		CLASS 2500	
	N · m	Ft · Lbs	N · m	Ft · Lbs	N · m	Ft · Lbs	N · m	Ft · Lbs
2	36.03	26.58	52	38.36	89.01	65.66	121.96	89.96
3	68.41	50.46	118.16	87.16	235.28	173.54	304.21	224.39
4	128.51	94.79	205.77	151.78	360.98	266.26	443.43	327.07
6	342.85	252.89	449.12	331.27	826.28	609.46	116.04	85.59
8	586.66	432.72	901.67	665.07	1499.34	1105.92	2153.18	1588.19
10	938.04	691.9	1442.63	1064.08	2510.24	1851.56	3822.58	2819.54
12	1357.26	1001.11	2013.68	1485.29	3680.97	2715.08	5677.12	4187.44
14	1674.93	1235.43	2359.14	1740.1	4683.27	3454.38	7162.25	5282.88
16	2289.37	1688.64	3143.04	2318.3	5812.76	4287.49	9471.33	6986.05
18	3002.11	2214.36	4892.04	3608.4	8326.94	6141.95	12256.96	9040.74
20	3966.19	2925.46	6350.75	4684.3	12523.62	9237.42	/	/
24	5999.69	4425.37	10737.17	7919.74	23700.28	17481.33	/	/



Pressure Sealed Globe Valve

NPS	CLASS 600		CLASS 900		CLASS 1500		CLASS 2500	
	N · m	Ft · Lbs	N · m	Ft · Lbs	N · m	Ft · Lbs	N · m	Ft · Lbs
2	58.16	42.9	130.57	96.3	132.15	97.5	491.4	362.5
3	155.04	114.4	313.96	231.6	576.72	425.4	900.35	664.1
4	331.48	244.5	527.96	389.4	874.96	645.4	1475.42	1088.3
6	807.55	595.6	1268.49	935.6	2500.94	1844.7	3462.51	2553.9
8	1935.56	1427.7	2975.13	2194.5	5169.96	3813.4	8858.55	6534.1
10	2845.18	2098.6	5364.26	3956.68	8845.95	6524.8	16133.8	11900.3
12	4902.21	3615.9	6462.9	4767.04	14726.04	10861.9	22739.66	16772.8
14	6976.96	5146.2	9354.65	6900	20462.87	15093.41	24614.81	18155.9
16	9845.26	7261.9	12466.47	9195.3	25709.42	18963.3	/	/
18	13056.45	9630.4	/	/	/	/	/	/

Performance Parameters

Test Pressure (MPa)		Nominal Pressure (MPa)				Pressure Rating Class (MPa)			
		1.6	2.5	4.0	6.3	10.0	150	300	600
Shell Testing		2.4	3.75	6.0	9.6	15.0	2.93	7.58	15.0
Closure Testing		1.76	2.75	4.4	7.04	11.0	2.07	5.52	11.03
Air Pressure Testing		0.6							
Applicable Temperature		-196 ℃~300 ℃ (Note: Different materials will be chosen for different working temperatures)							
Applicable Medium	General	Water, vapor, petroleum, liquefied gas, natural gas, etc.							
	Anti-Sulfur	Natural gas,petroleum,etc. with H2S and CO.							

Note:Due to quick development of products, the data in our catalogue may be updated.SNY reserves the right to change the design, material, or specifications without notice and free of obligation to furnish or install such changes on products on products previously sold.



PRODUCT WARRANTY

SNY offer the product warranty within 18 months from the date of shipment or 12 months after installation,whichever occurs first.